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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

KOENIG, ANDREW Y

ART UNIT PAPER NUMBER

2611

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/802,250

Applicant(s)

CLOONAN ET AL.

Examiner

Andrew Y Koenig

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/13/02, 8/19/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3, 4, 6-9, 12, 14-16 of U.S. Patent No. 6,636,482 to Cloonan et al. Although the conflicting claims are not identical, they are not patentably distinct from each other because allowing the instant application would result in an unwarranted time-wise extension of the monopoly granted for the invention defined by claim 1 of U.S. Patent 6,636,482.

Claims 1, 3, 9 and 11 of the instant application is a broader characterization of the already patented claims 1 and 9 respectively of U.S. Patent 6,636,482.

Claim 2 of the instant application corresponds to patented claim 3.

Claims 4 and 12 of the instant application uses downstream cable data system channels. It is well known to use downstream data system channels for the benefit of efficiently allocating bandwidth.

Claim 5 of the instant application corresponds to patented claim 4.

Claim 6 of the instant application corresponds to patented claim 7.

Claim 7 of the instant application corresponds to patented claim 6.

Claim 8 of the instant application corresponds to patented claim 8.

Claim 10 of the instant application corresponds to patented claim 11.

Claim 13 of the instant application corresponds to patented claim 12.

Claim 14 of the instant application corresponds to patented claim 15.

Claim 15 of the instant application corresponds to patented claim 14.

Claim 16 of the instant application corresponds to patented claim 16.

3. Claims 1-16 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1, 2, 5-8, 10, 11, and 14-17 of copending Application No. 09/802,092. Although the conflicting claims are not identical, they are not patentably distinct from each other because allowing the instant application would result in an unwarranted time-wise extension of the monopoly granted for the invention defined by claim 1 of U.S. Patent Application No. 09/802,092.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1 and 9 of the instant application is a broader characterization of claims 1 and 10 respectively of Patent Application No. 09/802,092.

Claims 2 and 10 of the instant application corresponds to claims 2 and 11, respectively.

Claims 3 and 11 of the instant application use upstream cable data system channels. It is well known to use upstream data system channels for the benefit of efficiently allocating upstream bandwidth.

Claims 4 and 12 of the instant application uses downstream cable data system channels. It is well known to use downstream data system channels for the benefit of efficiently allocating downstream bandwidth.

Claims 5 and 13 of the instant application corresponds to claims 5 and 14, respectively.

Claims 6 and 14 of the instant application corresponds to claims 6 and 15, respectively.

Claims 7 and 15 of the instant application corresponds to claims 7 and 16, respectively.

Claims 8 and 16 of the instant application corresponds to claims 8 and 17, respectively.

Claim Objections

4. Claims 1 and 9 are objected to because of the following informalities:

Claim 1 recites the limitation "the available bandwidth" in line 3. There is insufficient antecedent basis for this limitation in the claim. For the rest of this office action, "the available bandwidth" will be interpreted as "available bandwidth."

Claim 1 recites the limitation "the bandwidth" in line 6. There is insufficient antecedent basis for this limitation in the claim. For the rest of this office action, "the bandwidth" will be interpreted as "a bandwidth."

Claim 9 recites the limitation "the available bandwidth" in line 3. There is insufficient antecedent basis for this limitation in the claim. For the rest of this office action, "the available bandwidth" will be interpreted as "available bandwidth."

Claim 9 recites the limitation "the bandwidth" in line 7. There is insufficient antecedent basis for this limitation in the claim. For the rest of this office action, "the bandwidth" will be interpreted as "a bandwidth."

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3, 4, 9, 11, and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,223,222 to Fijolek et al. (Fijolek).

Regarding claims 1 and 9, Fijolek teaches a system and method for controlling traffic loading in cable modem system, comprising determining using a QoS server

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(332) available bandwidth on a requested channel (col. 29, ll. 56-59), comparing the bandwidth by means of the QoS server (332) on the requested channel to the bandwidth requested by the user (col. 33, ll. 42-53), determining whether the bandwidth is greater than the requested amount of bandwidth (col. 33, ll. 48-53), and granting the cable service request based upon the determination whether the bandwidth of greater than the bandwidth to be allocated (col. 33, ll. 53-65, see also col. 33-34, ll. 66-11).

Regarding claims 3, 4, 11, and 12, Fijolek teaches allocating services for both the upstream and downstream channels (col. 30, ll. 19-28, see also Table 10).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,223,222 to Fijolek et al. (Fijolek) in view of U.S. Patent 6,742,187 to Vogel.

Regarding claims 2 and 10, Fijolek is silent on transferring the subscriber to a different data channel with more available capacity when the requested channel is less than the bandwidth to be allocated. Vogel teaches transferring a subscriber to a different channel with a greater channel capacity when the available capacity on a channel degrades (and thereby is less than the bandwidth requested) (col. 13, ll. 10-25).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Fijolek by switching to a different channel when the available capacity is less than the bandwidth requested as taught by Vogel in order to reduce delays in channels and efficiently provide dynamic load balancing in the upstream direction (Vogel: 3, ll. 10-16).

9. Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,223,222 to Fijolek et al. (Fijolek) in view of U.S. Patent 6,850,965 to Allen.

The examiner notes that U.S. Patent 6,850,965 is a continuation-in-part of U.S. Application No. 09/344,688 support for the col. 23, ll. 18-57 of the patent can be found in application 09/344,688 (specifically on pages 18-20).

Regarding claims 5 and 13, Fijolek teaches denying service if the available bandwidth on a requested channel is less than the bandwidth being allocated (col. 33, ll. 61-65), accordingly, Fijolek fails to teach granting service if the available bandwidth on a requested channel is less than the bandwidth being allocated. Allen teaches granting services when the bandwidth on the requested channel is less than the bandwidth being allocated but greater than the sums of the minimum flow rates on the channel (col. 23, ll. 18-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Fijolek by granting service if the available bandwidth on a requested channel is less than the bandwidth being allocated as taught by Allen in order to maximizing charges thereby increasing profits by using the reserve bandwidth (Allen: col. 23, ll. 48-57).

10. Claims 6, 7, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,223,222 to Fijolek et al. (Fijolek) and U.S. Patent 6,850,965 to Allen in view of U.S. Patent 6,097,697 to Yao et al. (Yao).

Regarding claims 6, 7, 14, and 15, Fijolek and Allen teach allocation schemes but are silent on losing packets when a channel is oversubscribed and when the packets are randomly lost. Yao teaches in a congested network (e.g. oversubscribed) that it is common to randomly lost packets (col. 4, ll. 20-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Fijolek and Allen by randomly losing packets in a congested network as taught by Yao in order to effectively adjust the transmission rates to reduce the number of lost packets (col. 2, ll. 41-44).

11. Claims 6, 8, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,223,222 to Fijolek et al. (Fijolek) and U.S. Patent 6,850,965 to Allen in view of U.S. Patent 6,345,038 to Selinger.

Regarding claims 6, 8, 14, and 16, Fijolek and Allen teach allocation schemes but are silent on losing packets when a channel is oversubscribed and when the packets are based on levels of service, where higher levels of service lose less packets. Selinger teaches priority ordered queues (col. 7, ll. 51-63), which give a priority to packets having higher levels of Quality of Service (QoS), thereby when a channel is

oversubscribed the higher levels of service drop less packets (col. 1, ll. 49-63).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Fijolek and Allen by losing packets are based on levels of service, where higher levels of service lose less packets as taught by Selinger in order to guarantee subscribers a level of service during heavy congestion, thereby enabling users to pay for the type of service that they would like to receive.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Y Koenig whose telephone number is (703) 306-0399. The examiner can normally be reached on M-Th (7:30 - 6:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on (703) 305-4755. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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PRIMARY EXAMINER